International Journal of Academic Research and Development
ISSN: 2455-4197; Impact Factor: RJIF 5.22
Received: 08-09-2019; Accepted: 11-10-2019
www.academicjournal.in
Volume 4; Issue 6; November 2019; Page No. 67-68

Analysis of hand reaction time between male and female 10 meter pistol shooters

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Abstract
The present study has been designed to analyze the hand reaction time between male and female 10 meter pistol shooters. For accomplish the study, total 20 ten meter Pistol Shooters were selected randomly as subjects for the present study. Out of the total sample 10 were male and 10 were female pistol shooters. The age of the sample were ranged from 18 to 25 years respectively. The competition level of subjects was interuniversity level. The collected data of hand reaction time between male and female 10 meter Pistol shooters was analyzed through independent sample't' test and level of significance was 0.05 alpha.

Keywords: hand reaction time, 10 meter pistol shooting

Introduction

Shooting sports is a collective group of competitive and recreational sporting activities involving proficiency tests of accuracy, precision and speed in shooting — the art of using various types of ranged weapons, mainly referring to man-portable guns (firearms and airguns, in forms such as handguns, rifles and shotguns and bows/crossbows. Different disciplines of shooting sports can be categorized by equipment, shooting distances, targets, time limits and degrees of athleticism involved. Shooting sports may involve both team and individual competition, and team performance is usually assessed by summing the scores of the individual team members. Due to the noise of shooting and the high (and often lethal) impact energy of the projectiles, shooting sports are typically conducted at either designated permanent shooting ranges or temporary shooting fields in the area away from settlements.

French pistol champion and founder of the modern Olympics, Pierre de Coubertin, participated in many of these early competitions. This fact certainly contributed to the inclusion of five shooting events in the 1896 Olympics. Over the years, the events have been changed a number of times in order to keep up with technology and social standards. The targets that formerly resembled humans or animals in their shape and size have are now a circular shape in order to avoid associating the sport with any form of violence. At the same time, some events have been dropped and new ones have been added. The 2004 Olympics featured three shooting disciplines (rifle, pistol, and shotgun) where athletes competed for 51 medals in 10 men's and 7 women's events—slightly fewer than the previous Olympic schedule.

In the Olympic Games, the shooting sport has always enjoyed the distinction of awarding the first medals of the Games. Internationally, the International Shooting Sport Federation (ISSF) has oversight of all Olympic shooting events worldwide, while National Governing Bodies (NGBs) administer the sport within each country. Having originally established shooting as an organized sport in the US, the NRA was the obvious choice to administer the United States participation in the Olympic Games. The NRA dutifully managed and financially supported international and conventional shooting sports (i.e., National Matches) for over 100 years until the formation of USA Shooting.

Objective: To analyze the hand reaction time between male and female 10 meter Pistol Shooters.

Hypothesis (H0): "There would be no significant difference between male and female pistol shooters in their hand reaction time"

Methodology

The present study has been designed to analyze the hand reaction time between male and female 10 meter pistol shooters.

Selection of the Sample: For accomplish the study, total 20 ten meter Pistol Shooters were selected randomly as subjects for the present study. Out of the total sample 10 were male and 10 were female pistol shooters. The age of the sample were ranged from 18 to 25 years respectively. The competition level of subjects was interuniversity level.

Selection of Variable: The Hand Reaction Time was used as variable of the present study which was assessed through ruler drop test administration.

Statistical Technique Used: The collected data of hand reaction time between male and female 10 meter Pistol shooters was analyzed through independent sample t test and level of significance was 0.05 alpha.

Results

Table 1: Comparison of Mean Score of Hand Reaction Time between Male and Female 10 Meter Pistol Shooters

Variable	Groups	N	Mean	SD	(*df*)	t	Sig.
HRT	MPS-10	10	10.40	2.71	18	.090	.929
	FPS-10	10	10.28	3.43			

HRT= Hand Reaction Time; MPS = Male Pistol Shooter, FPS = Female Pistol Shooters; Alpha 0.05

Table no 1 shows the comparative statistics as well was descriptive statistics in term of mean, standard deviation and independent sample t test. The mean and standard deviation score of male pistol shooters was 10.40±2.71 whereas, the mean and standard deviation of female pistol shooters was 10.28±3.43 as per the obtained outcomes. The calculated t value was .090 which was not significant at 0.05 level of alpha ($p>0.05$) respectively. Therefore, it can be concluded that male and female pistol shooters have equal hand reaction time at university level participation.

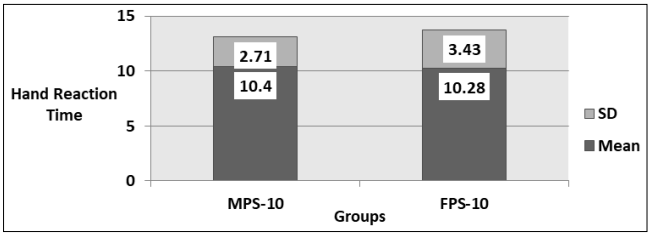

Fig 1: Graphical Illustration of Mean and Standard Deviation as Descriptive Statistics of Male and Female Pistol Shooters

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